

Application No:10/646,784

Amendment Dated: April 26, 2007

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 2 of 17

AMENDMENTS TO THE SPECIFICATION**RECEIVED
CENTRAL FAX CENTER****APR 26 2007**

Please replace paragraph [0050] with the following paragraph:

[0050] The complete sequence nucleotide sequence for MIS is disclosed in U.S. Patent No.5,047,336, which is hereby incorporated by reference. The DNA sequences of this invention are selected from the group consisting of: (a) the DNA sequences

AAGGTCG CGGCAGAGGA GATAGGGGTC TGTCTGCAC AAACACCCCA CCTTCCACTC
GGCTCACTTA AGGCAGGCAG CCCAGCCCCT GGCAGCACCC ACGATGCGGG ACCTGCCTCT
CACCAGCCTG GCCCTAGTGC TGTCTGCCCT GGGGGCTCTG CTGGGACTG AGGCCCTCAG
AGCAGAGGAG CCAGCTGTGG GCACCACTGG CCTCATCTTC CGAGAAGACT TGGACTGGCC
TCCAGGCATC CCACAAGAGC CTCTGTGCCT GGTGGCACTG GCGGGGACA GCAATGGCAG
CAGCTCCCCC CTGCGGTGG TGGGGCTCT AAGCGCTAT GAGCAGGCCT TCCTGGGGGC
CGTGCAGAGG GCGCGCTGGG GCGCCGAGA CTGGCCACC TTCGGGTCT GCAACACCGG
TGACAGGCAG GCTGCTTGC CCTCTTACG GCGGCTGGG GCCTGGCTGC GGGACCCTGG
GGGCAGCGC CTGGTGTCC TACACCTGGA GGAAGTATG TGGGGCCAG CCCCAAGCTT
GGCACCGCG TCTTCTTCA GGTGGGCGG GTCTCTTAG GGAAGATCAG GGGCTGGCAG
AGCCCCACC CTGGGCAGGG AGGCTGTGGT CTGTTCCTA GGAAGGTT GCGGTCCGT
GGCTGGAAG GTGGGCACCA CACTCTGTCC TGTCCCGAA GCCAGCTCT TAGACTTGCC
CCTGCCTCGG TGCCAGGAG AGAGCTGCTG CCTTCTCCC ACCCTGAAG ACGACGCAGG
GCTGGGGCC AGTGAACCC TCTTCCAC AGCCCCAGC TGTCTCAGG GCGCTGGCC
TAAGATACTC CTGCGGGGA AGGGCTTCA TCGGCACCC CAACCCAGAG ACCCCAGGGC
GGCAGCCCCA CCCACAGCCT CAGACGCAGC CCCTGCTGC CCCTGCCGTC ACCGCTCCCT
GGCTGCAGGA AGCAGCTAA GAGGGGCACC CTGTGCCCC GCTTGAGGTG CCTGCACAG
TGGCCAGAG GGCAGGACA GATCCCAAAG ATTCCGGGG GGTGTGGCT TCAATGCTC
AGGCGTCCCC TGCTGTCCG GCTGCAGTGA CTGGGAGCC AACACCCTG CTGAGGTTCC
AGGAGCCCCC GCCTGGAGGA GCTGGCCCC CAGAGCTGGC GCTGCTGGT CTGTACCCTG
GGCTTGGCCC TGAGTCACT GTGACGAGG CTGGGCTGCC GGGTGCCAG GTACCAAGGA
GTTGCATGG GCACTGCCC GCGCGTGGG GGGGGCATGA ATTGTGTGA GGTCTTCAG
TACTGAGAAC AGCGTAGAAC CAGTGGCGAT GGGAGGAAGG GCACCGGTAG AGCGGGCTG
GGTAAGCCTC CATCCAGCCG GGCTGAGCCC TGGTCTCCG AGAGCCTCTG CCGCTCCCGA
GACACCGCT ACCTGGTGT AGCGGTGGC GCGCCTGCG GGGCCTGGG CCGCTCCGGG
CTGGCCTTGA CCTGCAGCC CCGCGGAGG GGTAGGTCCG CGTGGAGAGG GACGGGGAGC
GCGGTGACT GCGCCGGGC CCGAGCCCC TGAGCCAGC GCGTGCCAC CCACCGAGA
CTCCCGCTG AGTACCGCCC GGCTGCAGG ACTGCTGTT GCGACGACC ACCGCTGCTT
CACACGATG ACCCGGCCC TGCTCTGCT GCGCGGTCC GAGCCCGGC CGTGCCTGC
GCACGGCCAG CTGGACACCG TGCCCTTCCC GCGCCGAGG TGCGCGCAG CACCGGACA
GCGGGCAGGA GCGGGCGGG GCGGCGTGG CTGTTGGCG CTCTCAACTC CTCCAATTGC
GGGTTCCAGG CCATCCGCG AACTCGAGA GTCCGCCACC AGCGCAGACC CCTTCTGGA
GACGCTCAG CCGCTGTGC GCGCGCTGG GTCCCCCG GCGCGGCTT CCGCGCGCG
CCTGGCCCTG GATCCGACG CGCTGGCCG CTTCGCCAG GGCCTAGTCA ACCTGTGGA
CCCCGCGCG CTGGAGCGC TACTCGACG CAGGAGCCG CTGCTGCTG TGCTAGGCC
CACTGCGGC ACCACCGGG ATCTGCGCC CTGACAGAC CCCACGTCG GCGCGTGGG

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 3 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

CACGGCCCTG GCGCGCCCGG TGGCTGCTGA ACTGCAAGCG GCGGCTGCCG AGCTGCGAAG
CCTCCCGGGT CTGCTTCGG CCACAGCCCC GCTGCTG3CG GCGCTGCTCG CGCTCTGCC
AGGAGGCCCC GCGGCGCTCG GCGATCCCCCT GCGAGCGCTG CTGCTCCTGA AGGCGCTGCA
GGGCTTGGCC GTGGASTGGC GCGGGCGGGA TCCGCGCGGG CCGGCTCGGG CACAGCGCAG
CGCGGGGGCC ACCGCCGCG ACGGGCCGTG CGCGCTGCGC GAGCTCAGCG TAGACCTCG
CGCCGAGCGC TCCGTACTCA TCCCCGAGAC CTACCAGGCC AACAAATTGCC AGGCGTGTG
CSGCTGGCCT CAGTCCGACC GCAACCCGCG CTACGGCAAC CACGTGGTGC TGCTGCTGAA
GATGAGGCC CTGCGGCGCG CCCTGGCGCG CCCACCTGC TCGTGCCCA CCGCTACGC
GGGTAAGCTG CTCATCAGCC TGTGCGAGGA ACGCATCAGC GCGCACCAG TGCCCAACAT
GGTGCCACC GAGTGTGGCT GCCGGTGACC CCTGCGCCGC GCGACTCCT GCCCGAGGG
TCCGGACGCG CCCGAGCTCG CGCCCTTCC CATATTTATT CGGACCCCA GCATCGCCCC
AATAAGACC AGCAAGC

(the sequence of the human gene) (SEQ ID NO:1);

AGCACCC ACGATGCGGG ACCTGCCTCT
CACCAGCCTG GCCCTAGTGC TGTCTGCCCT GGGGGCTCTG CTGGGACTG AGGCCCTCAG
AGCAGAGGAG CCAGCTGTGG GCACCACTGG CCTCATCTTC CGAGAAGACT TGGACTGGCC
TCCAGGCATC CCACAAGAGC CTCGTGCTCT GGTGGCACTG GCGGGGACA GCAATGGCAG
CAGCTCCCC CTGCGGCTGG TGGGGGCTCT AAGCGCTAT GAGCAGGCTT TCCTGGGGC
CGTGCAAGG GCCCGTGGG GCGCCGAGA CCTGGCCACC TTCGGGCTCT GCAACACCGG
TGACAGGCAG GCTGCTCTGC CCTCTCTAG GCGGCTGGGG GCCTGCTGC GGGACCTGG
GGGCGAGCGC CTGCTGTCT TACACCTGGA GGAAGTATG TGGGGCCAG CCCCAAGCTT
GGCACCGCG TCTTCTCTCA GGTGGGCGG GTCTCTTAG GGAAGATCAG GGGCTGGCAG
AGCCCCCACC CTGGGCGGG AGGCTGTGGT CTGTCTCTA GGAATGGGT GCGGGTCCGT
GGCTTGAAG GTGGGCACCA CACTCTGTCC TGTCGCCGA GCCAGCTCT TAGACTTCCC
CCTGCTCGG TGCCAGGAG AGAGCTGCTG CCTTCTCCC ACCCTGAAG ACGACGAGG
GCTCGGGGCC AGTGGAACCC TTCTTCCAC AGCCCCAGCC GTTCTCAGG GCGCTGGCC
TAAATACTC CTGCGGGGA AGGGCTTCA TCGGGCACCC CAACCCAGAG ACCCCAGGGC
GGCAGCCCCA CCCACAGCT CAGACGAGC CCTGCTGC CCTGCGTC ACCGCTCCCT
GGCTGCAGGA AGGCAGTAA GAGGGGCACC CTGTCCCCC GCTTGAATC CCTGACAG
TGGCCAGAGC GGCAGGACA GATCCCAAAG ATTCCCGGG GGTGTGGCT TCAATGGCTC
AGGCGTCCC TGCTGTCCG GCTGCAGTGA CCTGGGAGCC AACACCTCG CTGAGGTTC
AGGAGCCCC GCCTGGAGGA GCTGGCCCC CAGAGCTGGC GCTGCTGTG CTGTACCTG
GGCTGGGCC TGAGTCACT GTGACGAGG CTGGGCTGCC GGTGCCAG GTACCAGGA
GTTCATGGG GCAGTGCCG GCGCGTGGG GGGGGCATGA ATTTGTGCA GGGTCTGCAG
TACTGAGAAC AGCGTAGAAC CAGTGGGAT GGGAGGAAG GACCGGTAG AGCGGGGCTG
GGTAAGCTC CATCCAGCG GGTGAGCCC TGCTCTCCG AGAGCTCTG CCTTCCCGA
GACACCCGCT ACCTGGTGT AGCGTGGAC CGCCCTGCG GGGCTGGCG CGGCTCCGGG
CTGGCCTGA CCTGCAGCC CGCGGAGAG GTAGGTCCG CGTGAGAGG GACGGGAGC
CGGCTCGACT GCGCCCGGC CCCCGCCCC TGAGCTAGCC GCGTGCCAC CACCGCAGA
CTCCCGGCTG AGTACCGCCC GGTGCGAGC ACTGCTGTC GCGACGACC ACCGCTGCTT
CACACGATG ACCCGGCCC TGCTCTGCT GCGCGGTCC GAGCCGCGC CGCTGCTGC
GCACGGCAG CTGGACACC TGCCCTTCCC GCGCGCAGG TGCGCGCAG CACCGGACA
CGGGGCAGGA GCGGGCGGG GCGCGTGGC CTGCTGCGG CTCTCAACT CTCCAATTGC
GGGTTCAGG CCATCCCGG AACTCGAGGA GTGCGCACCC AGCGCAGACC CTTCTTGA
GACGCTCAG CCGCTGTGC GGGCGCTGC GTTCCCCG GCGCGGCTT CCGCGCGCG

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 4 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

CCTGGCCCTG GATCCGACG CGCTGGCCGG CTTCGCCAG GGCCTAGTCA ACCTGTCGGA
CCCCCGGCG CTGGAGCGCC TACTCGACCG CGAGGAGCG CTGCTGCTGC TGCTGAGGCC
CACTGCGGCC ACCACCGGG ATCTGCGCC CTGCACGAC CCCAGTCCG CGCCGTGGG
CACGGCCCTG GCGCGCGCG TGGTGCTGA ACTGCAAGCG GCGGCTGCG AGCTGCCAAG
CTCCCGGGT CTGCTCCCG CCACAGCCCC GCTGTGGCG CGCCTGCTCG CGCTCTGCC
AGGAGGCCCC GCGGCGCTCG GCGATCCCT GCGAGCGCTG CTGCTCTGA AGGCGCTGCA
GGGCTGCGC GTGGAGTGG GCGGGCGGA TCCGCGCGG CCGGTTCGG CACAGCGCAG
CGCGGGGCC ACCGCGCGG ACGGGCGTG CGGCTGCGC GAGCTCAGG TAGACCTCG
CGCGAGCGC TCGTACTCA TCCCGAGAC CTACAGGCC AACAATTGCC AGGCGTGTG
CGGCTGGCT CAGTCCGAC GCAACCCCG CTACGGCAAC CAGTGGTGC TGCTGTGAA
GATGAGGCC CGTGGGCGG CCTGGGCGG CCCACCTGC TGCTGCCCA CGGCTACGC
GGGCAAGCTG CTCATCAGC TGTCGGAGG ACGCATCAG GCGACCAAG TGCCCAACAT
GGTGGCCACC GAGTGTGGT GCGGTGACC CTGCGCGCG GCGACTCCT GCGCGAGGG
TCCGAGCGG CCGCAGCTCG CGCCCTTCC CATATTATT CGGACCCCA GCACTGCCCC
AATAAGACC AGCAAGC

(the sequence of human cDNA) (SEQ ID NO:2);

CAAGGTATG TCCAGGAGG AGATAGGAC CGCCTGCAC CACAAACAG TCTGCTCCCT CTTATAAAGT AGGGCAGCCC
AGCCCTGGA
AGCTCCAGG ATGCCCGTC CATCTCTTC TCTGGCCTG GTGCTGTGG CCATGGGGG
TTGCTGAGG CCAGGAGCC CCAGGGAAGA AGTCTCAGC ACCTCAGCT TGCCAGGGA
GCAGGCCACA GCGAGCGGG CACTCATCTT TCAGCAAGCC TGGGACTGGC CACTCTCCAG
TCTCTGGCTG CCAGGAGCC CTCTGGACCC CCTGTGCTG GTGACCTGC ATGGGAGTGG
CAACGGAGC AGGGCCCCC TGCGGGTGGT GGGGCTCTG AGCAGCTACG AGCAGCCCTT
CCTGGAGGCT GTGCGGCGCA CCCACTGGG CCTGAGTAC TTAGCCACT TCGAGTGTG
CCCCGCTGGC AACGGGCAGC CTGTGCTGCC CCACCTGCAG CGGCTGCAG CATGGCTGG
GGAGCCCGG GGGCGGTGG TGGTGGTCT GCACCTGGAG GAAGTACGT GGGAGCCAAC
ACCTTGCTG AGGTTCAGG AGCCTCCGCC TGGAGGAGC AGCCCCCAG AGCTGGCGCT
GCTGGTGGT TACCAGGGC CTGGCCTGGA GGTCACTGTC ACCGGGGCTG GGCTACCTGG
CACCCAGAGC CTCTGCCTGA CCGGGGACTC GBACTTCTG GCCTTGGTG TGGACCACC
GGAGGGGGC TGGCGCGGC CTGGGTTAGC CTTACCCTG CGGCGCGTG GAAATGGTGC
GCTCCTGAGC ACTGCCAGC TGCAGGCGCT GCTGTTCGGT GCGACTCCC GCTGCTTAC
ACGAAGACC CCAGCCCTGT TACTCTTGT GCCGGCCCG TCTTCGGCAC CGATGCCCGC
GCACGCTCG CTGACTTGG TGCCCTTCCC GCAGCCAGG GCTTCCCCG AGCCAGAGGA
GGCACC GCCGCTGAT CCTCCTGGA GACTCTCAG CGCTTGGTGC GCGCGCTTG
GGGACCCCG GCGGAGCCT CCGCAGCGG GCTGGCCTG GACCCGGGG CACTGGCTGG
TTTCCCGCAG GGCCAGGTCA ACCTGTGGA CCCCGCGGC CTGGAGCGCC TGCTGGACGG
CGAGGAGCG CTGCTGCTG TGCTGCCGCC GACGGCAGC ACCACCGGG TCCCCGCAAC
GCCGCAAGST CCAAGTCCC CTCTGTGGG CCGGGGACTA GCGCGCGGG TGGCTGCCGA
GCTTCAGGCG GTGGCGCGG AGCTGCTGC CTTCCGGGG CTGCCTCCAG CTGCCCCACC
GCTGCTGGC CGCTGCTGG CACTGTGCCC GGGAAACCA GACAGCCCC GCGGCCCGCT
GCGCGCGCTG CTGCTGCTCA AAGCGCTGCA GGGCTGCGC GCTGAGTGGC GCGGCGGGA
GCGGAGCGC TCTGCACGG CGCAGCGCAG CGCGGGGCC GCGGCTGCAG ACGGCGCTG
CGCTCTGCT GAGCTGAGC TAGACCTGCG GCGCGAGCG TCGGTGCTCA TCCCCGAGC
ATACAGGCC ACAAATGCC AGGGGGCTG CGGCTGGCT CAGTCGGAAC GCAACCGCG
CTACGGCAAC CAGTGGTGC TGCTGCTAAA GATGAGGCC CGCGGCGCA CCTGGCGCG

10532322.:

Application No:10/646,784

Amendment Dated: April 26, 2007

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 5 of 17

CCCCCCTGC TGTGTGCCCA CAGCCTACAC CGGCAAGCTC CTCATCAGCC TGTCCGAGGA
GCGCATCACT GCGCACCACG TCCCAAACAT GGTGECACCC GAATGCGGCT GCCGGTGACC
TCGCGCCGTG CTCCTCGTGC TGCCCCGGCC CGTATTATT CCGACCCCGT CATTGCCCCA
TAAACACGG GAAGGC

(the sequence of the bovine gene) (SEQ ID NO:3);

AGCTCCAGG ATGCCGGTC CATCTCTCTC TCTGGCCCTG GTGCTGTCGG CCATGGGGGC
TCTGCTGAGG CCAGGGACCC CCAGGSAAGA AGTCTTCAGC AACTCAGCCT TGCCAGGGA
GCAGGCCACA GGCAGCGGGG CACTCATCTT TCAGCAAGCC TGGGACTGSC CACTCTCCAG
TCTCTGGCTG CCAGGCAGCC CTCTGSAACC CTTGTGCCTG GTGACCCTGC ATGGGAGTGG
CAACGGGAGC AGGSCCCCC TGCGGTGGT GGGGGTCTG AGCAGCTACG AGCAGGCCTT
CCTGAGGGCT GTGCGGCGCA CCCACTGGGG CTTGAGTGAC TTGACCACCT TCGCAGTGTG
CCCCGCTGSC AACGGGACG CTGTGCTGCC CCACCTGCAG CGGCTGCAGG CATGECTGGG
GGAGCCCGSG GGGCGGTGSC TGGTGGTCTT GCACCTGGAG GAAGTGACGT GGGAGCCAAC
ACCTTGTCTG AGGTTCCAGG AGCCTCCGCC TGGAGGAGCC AGCCCCCAG AGCTGGCGCT
GCTGGTGGTG TACCCAGGSC CTGGCCTGGA GGTACATGTC ACCGGGGCTG GGCTACCTGG
CACCCAGAGC CTCTGCCTSA CCGCGGACTC GGACTTCTTG GCCTTGGTGC TGGACCACCC
GGAGGGGCGC TGCGCGCGSC CTGGGTTAGC CCTTACCTTG CGCGCCCGTG GAAATGGTGC
GCTCCTTAGC ACTGCCAGC TGACGGCGCT GCTGTTGGT GCGGACTCCC GCTGCTTAC
ACGAAAGACC CCAGCCCTGT TACTCTTGCT GCCGGCCCGG TCTTCGGCAC CGATGCCCGC
GCACGGTGG CTGGACTTGG TGCCCTTCCC GCAGCCAGG GCTTCCCCGG AGCCAGAGGA
GGCACCCCCC AGCGCTGATC CCTTCCTGGA GACTCTACG CGCCTGGTGC GCGCGCTTGC
GGGACCCCGG GCCCGAGCCT CGCCACCGCG GCTGGCCTTG GACCCGGGCG CACTGGCTGG
TTTCCCGCAG GGCAGGTCA ACCTGTCGGA CCCCAGCGCC CTGGAGCGCC TGCTGGACGG
CGAGGAGCG CTGCTGCTGC TGCTGCCGCC GACGGCAGCC ACCACCGGG TCCCGCAC
GCCGCAAGGT CCCAAGTCCC CTCTGTGGGC CGCGGGACTA GCGCGCCGG TGGCTGCCGA
GCTTCAGGCG GTGGCCGCCG AGCTGCGTGC CCTCCCGGG CTGCTCCAG CTGCCCCACC
GCTGCTGGCG CGCCTGCTGG CACTGTGCC GGGAAACCCA GACAGCCCCG GCGGCCGCT
GCGCGCGCTG CTGCTGCTCA AAGCGCTGCA GGGCTTGGC GCTGAGTGGC GCGGGCGGA
GCGGAGCGGC TCTGCACGG CGCAGCGCAG CGCGGGGCC GCGGCTGCAG AGGGCCGTG
CGCTCTGCGT GAGCTGAGCG TAGACCTGCG GGCCGAGCGC TCGGTGCTCA TCCCGAGAC
ATACCAGGCC AACAACTGCC AGGGGGCCCTG CGGCTGGCT CAGTCGGACC GCAACCCCG
CTACGGCAAC CAGGTGGTGC TGCTGCTAAA GATGCAGGCC CGCGCGCCA CCTGGCGCG
CCGCCCCCTG TGTGTGCCCA CAGCCTACAC CGGCAAGCTC CTCATCAGCC TGTCCGAGGA
GCGCATCAGT GCGCACCACG TCCCAAACAT GGTGGCCACC GAATGCGGCT GCCGGTGACC
TCGCGCCGTG CTCCTCGTGC TGCCCCGGCC CGTATTATT CCGACCCCGT CATTGCCCCA
TAAACACGG GAAGGC

(the sequence of bovine cDNA) (SEQ ID NO:4); and

(b) DNA sequences which hybridize to the aforementioned DNA sequences and which code on
expression for a human MIS-like polypeptide or a bovine-like polypeptide and preferably have a
substantial degree of homology (more preferably, at least about 70% homology and most preferably at
least about 80% homology) and the aforementioned DNA sequences; and

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 6 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

(c) DNA sequences which code on expression for a polypeptide code for on expression by any of the foregoing DNA sequences. Recombinant DNA molecules containing these DNA sequences, hosts transformed with them and MIS-like polypeptides coded for on expression by them are also part of this invention.

The DNA sequences, recombinant DNA molecules, hosts and processes of this invention enable the production of MIS-like polypeptides for use in the treatment of ovarian cancer and other suitable cancers.

Also within the scope of the present invention are the polypeptide selected from the group consisting of

MRDLPLTSLALVLSALGALLGTEALRAEPAVGTSGLIIFREDLD

WPPGIPQEPCLCLVALGGDSNGSSSPLRVVGALSAYEQAF LGAVQARWGPRDLATFGV

CNTGDRQAALPSLRRLGAWLRD?GGQRLVVLHLEEV TWEPTPSLRFQEP PPGGAGPPE

LALLVLYPGPGPEVTVTRAGLPGAQSLCPSRDTRYLVLA VDRPAGAWRGSGLALTLP

RGEDSRLSTARLQALLFGDDHRCFTRMTPALLLLPRSEPA LPAHGQLDTVFFPPPRP

SAELEESPPSADPFLETLTRLVRLRVPPARASAPRLALDP DALAGFPQGLVNLS DPA

ALERLLDGEEPLLLLLRPTAATTGDPAPLHDPTSAPWAT ALARRVAAELQAAAELRS

LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLLLKAL QGLRVEWRGRDPRGP GRAQ

RSAGATAADGPCALRELSVDLRAERSVLIPETYQANNCQ GVCGW PQSDRNPRYGNHV

LLLKMQARGAALARPPCCVPTAYAGKLLISLSEERISA HHVPMVATECGCR

(the complete amino acid sequence of human MIS protein) (SEQ ID NO: 5);

RAEPAVGTSGLIIFREDLD

WPPGIPQEPCLCLVALGGDSNGSSSPLRVVGALSAYEQAF LGAVQARWGPRDLATFGV

CNTGDRQAALPSLRRLGAWLRD?GGQRLVVLHLEEV TWEPTPSLRFQEP PPGGAGPPE

LALLVLYPGPGPEVTVTRAGLPGAQSLCPSRDTRYLVLA VDRPAGAWRGSGLALTLP

RGEDSRLSTARLQALLFGDDHRCFTRMTPALLLLPRSEPA LPAHGQLDTVFFPPPRP

SAELEESPPSADPFLETLTRLVRLRVPPARASAPRLALDP DALAGFPQGLVNLS DPA

ALERLLDGEEPLLLLLRPTAATTGDPAPLHDPTSAPWAT ALARRVAAELQAAAELRS

LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLLLKAL QGLRVEWRGRDPRGP GRAQ

10532322.1

Application No: 10/646,784

Amendment Dated: April 26, 2007

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 7 of 17

RSAGATAADGPCALRELSVDLRAERSVLIPEYQANNCQGVCGWFPQSDRNPRYGNHVLLLKMQARGAALARPPCCVPTAYAGKLLISLSEERISAHVPMNVATECGCR

(the amino acid sequence of mature human MIS protein) (SEQ ID NO: 6);

MPGPSLSLALVLSAMGALLRPGTPRBEVFSTSAIPREQATGSGALIFQQAQDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVRRTHWGLSDLTTFAVCPAGNGQFVLPHLQRLQAWLGEPGGRWLVVLHLEEVTVBPTPLLRFQEPFPGGASPPALALLVVPYPGGLEVTVTGAGLPQTQSLCLTADSDFLALVVDHPEGAWRRPGLALTLLRRGNGALLSTAQLQALLFGADSRCTFRKTPALLLLLPARSSAPMPAHGRDLVLPFPQPRASPEPEEAPPSADPFLETTLRLVRLAGPPPARASPPRLALDPGALAGFPQGVNLSQPAALERLLDGEELLLLLLPPTAATTGVPATPQGPKSPLWAAGLARRVAELQAVAAELRALPGLPPAAPLLARLLALCPGNPDSPGGPLRALLLLKALQGLRAEWRGRERSGSARAQRSAGAAAADGPCALRELSVDLRAERSVLIPEYQANNCQACGWPQSDRNPRYGNHVLLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPMNVATECGCR

(the complete amino acid sequence of bovine MIS protein) (SEQ ID NO: 7);

REEVFSTSAIPREQATGSGALIFQQAQDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVRRTHWGLSDLTTFAVCPAGNGQFVLPHLQRLQAWLGEPGGRWLVVLHLEEVTVBPTPLLRFQEPFPGGASPPALALLVVPYPGGLEVTVTGAGLPQTQSLCLTADSDFLALVVDHPEGAWRRPGLALTLLRRGNGALLSTAQLQALLFGADSRCTFRKTPALLLLLPARSSAPMPAHGRDLVLPFPQPRASPEPEEAPPSADPFLETTLRLVRLAGPPPARASPPRLALDPGALAGFPQGVNLSQPAALERLLDGEELLLLLLPPTAATTGVPATPQGPKSPLWAAGLARRVAELQAVAAELRALPGLPPAAPLLARLLALCPGNPDSPGGPLRALLLLKALQGLRAEWRGRERSGSARAQRSAGAAAADGPCALRELSVDLRAERSVLIPEYQANNCQACGWPQSDRNPRYGNHVLLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPMNVATECGCR

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 8 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

(the amino acid sequence of mature bovine MIS protein) (SEQ ID NO: 8); and

MIS-like polypeptides related thereto.

The C- terminal amino acid and nucleotide sequences for bovine MIS are shown in FIG. 17 of U.S. Patent No. 5,661, 126, which is hereby incorporated by reference in its entirety. Fig. 17 shows the amino acid (SEQ ID NO:2, herein referred to as SEQ ID NO:9) and nucleotide (SEQ ID NO:1, herein referred to as SEQ ID NO:10) sequences of bovine MIS C-fragment, having about 109 amino acids. The C-terminal amino acid and nucleotide sequences for human MIS are shown in FIG. 18 of U.S. Patent No. 5,661, 126. Fig 18 shows the amino acid (SEQ ID NO:4, herein referred to as SEQ ID NO:11) and nucleotide (SEQ ID NO:3, herein referred to as SEQ ID NO:12) sequences of human MIS C-terminal fragment, having about 109 amino acids. A comparison of the amino acid sequence for human and bovine MIS, showing the - and C- terminal domains is shown in Cate et al., Handbook of Experimental Pharmacology 95/II: 184, edited by M.B. Spoon and A.B. Roberts, Springer-Verlag Berlin Heidelberg (1990), which are hereby incorporated by reference.

10532322.1